



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/723,778

11/26/2003

Henry DaCosta

IMM174

4196

34300 7590 03/06/2008

PATENT DEPARTMENT (51851)  
KILPATRICK STOCKTON LLP  
1001 WEST FOURTH STREET  
WINSTON-SALEM, NC 27101

EXAMINER

LIANG, REGINA

ART UNIT

PAPER NUMBER

2629

MAIL DATE

DELIVERY MODE

03/06/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/723,778	<b>Applicant(s)</b> DACOSTA ET AL.	
	<b>Examiner</b> Regina Liang	<b>Art Unit</b> 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13, 16-23 and 26-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13, 16-23, 26-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/16/08 has been entered. Claims 1-13, 16-23, 26-32 are pending in the application.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 6 and 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Fig. 3 and section [0050] of the specification discloses “If the speed is less than the speed threshold, the change in pseudo pressure is compared to a threshold value 322. If the change in pseudo pressure is less than or equal to the threshold, the processor (106) returns to step 302 in the process. If the change in pseudo pressure is greater than the threshold, the processor (106) determines whether the first interval has elapsed 324, if so, the processor (106) concludes that the user is pressing 326 and the processor (106) returns to step 302 in the process”. In step 322, the specification discloses the change in pseudo pressure is compared to **a threshold value**. Although the specification discloses in steps 302 and 306 of Fig. 3, comparing the pressure signal to an upper threshold and to a lower threshold, respectively, the specification does not disclose in step 322 that the change in pseudo pressure is compared to a first pressure threshold value and a second pressure threshold value, and outputting the signal if the pressure signal is greater than both first pressure threshold value and the second pressure threshold value. Therefore, the specification does not provide support for “comparing to a second pressure threshold value, and outputting the signal if the pressure signal is greater than both first pressure threshold value and the second pressure threshold value” as claimed in claims 6 and 20

### ***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 19-23, 26-28, 30, 32 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 19-23, 26-28, 30, 32 are rejected under 35 U.S.C. 101 as being non-statutory because claims although claim a computer-readable

Art Unit: 2629

medium on which is encoded programming code, however, page 8, [0024] of the specification discloses "Embodiments of computer-readable media include, but are not limited to, an electronic, optical, magnetic, or other storage or transmission device capable of providing a processor, .... Also, various other forms of computer-readable media may transmit or carry instructions to a computer, including a router, private or public network, or other transmission device or channel, both wired and wireless", in light of the definition in the specification, the medium as claimed is that of a signal. As set forth in the Interim Guidelines, page 55, "A claimed signal has no physical structure, does not itself perform any useful, concrete and tangible result and, thus, does not fit within the definition of a machine". Therefore, claims 19-23, 26-28, 30, 32 are nothing but a signal and signal is non-statutory.

### ***Claim Rejections - 35 USC § 103***

7. Claims 1-3, 5-13, 16, 17, 19-23, 26, 27, 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillespie et al (US 5,880,411 hereinafter Gillespie) in view of Astala et al (US 6,590,568 hereinafter Astala).

As to claims 1, 19, Gillespie discloses a method comprising: receiving a pressure signal (e.g. Z-value, Fig. 1) indicating a pressure from an input device (e.g. finger); determining a change in pressure based at least in part on the pressure signal (col. 23, lines 25-32, col. 24, lines 44-60 for example); determining a velocity associated with the pressure signal; and outputting a press signal if the velocity is less than the velocity threshold (col. 36, lines 26-47, which states "There are several ways to distinguish between a true drag and a press. **A true drag can be identified if the finger's speed of motion prior to lift-off is above a small threshold.** A press

Art Unit: 2629

can be identified if the finger was stationary through the entire gesture, possibly ignoring small, inconsequential movements”; in other words, a press can be identified if the finger’s speed of motion prior to lift-off is below a small threshold), and the change in pressure is greater than a change in pressure threshold (col. 35, lines 28-30, and col. 49, lines 8-112 for example).

Gillespie does not disclose outputting a press signal if a first interval has elapsed. However, Astala is cited to teach outputting a press signal if the value of pressure of touch input is greater than a pressure threshold and a first interval has elapsed (col. 9, lines 24-35). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gillespie to output the press signal if a first interval has elapsed as taught by Astala so as to “provide a touch screen technique for an electronic device in which the location and the time duration of an object, such as a finger or stylus or other pointed object, contacting or pressing a detection point on the touch screen, are detected” (col. 2, lines 21-23 of Astala) and to eliminate unintentional contact.

As to claims 31, 32, Gillespie discloses comparing the pressure signal to an adaptive pressure threshold value, and outputting the press signal if the pressure signal is greater than the adaptive pressure threshold value (302, 320 in Fig. 17A).

As to claim 2, Gillespie also discloses an adaptive pressure threshold value (col. 23, lines 29-32), wherein the adaptive pressure threshold value ( $Z_{TH}$ ) is associated with an absolute pressure threshold.

As to claim 3, Gillespie discloses adaptive pressure threshold value is associated with a position received from the input device (e.g. the Z-values is derived from the position signals X and Y).

As to claim 5, Gillespie discloses the adaptive pressure threshold value is associated with a user identifier (col. 23, lines 31-32).

As to claims 6, 20, Fig. 9 of Gillespie discloses the adaptive pressure threshold value comprises a first pressure threshold value, and further comprising: comparing the pressure signal to a second pressure threshold value; and outputting the signal if the pressure signal is greater than both the first pressure threshold value and the second pressure threshold value.

As to claims 16 and 20, Gillespie discloses a first pressure signal and a second pressure signal, calculating a difference signal indicative of a difference between the first and second pressure signal, comparing the difference signal to a difference threshold value and outputting the press signal if the difference signal is greater than the difference threshold value (col. 24, lines 20-60).

As to claim 7, Gillespie discloses the pressure signal comprises a pseudo pressure signal (e.g. the pressure value is varied in accordance with the capacitance value).

As to claim 8, Gillespie discloses supplying a pressure filter (48-1...48-n, Fig. 3) to the pressure signal to create a filtered pressure signal.

As to claims 9-11, 17, 21-22, 27, Gillespie discloses the pressure filter comprises a first pressure filter comprising a first attribute (e.g. high frequency, col. 13, lines 34-44), and further comprising applying a second pressure filter to the pressure signal, the second pressure filter comprising a second attribute (e.g. low frequency, col. 15, line 55) that is different than the first attribute.

As to claims 12, 23, Gillespie discloses applying the pressure filter comprises applying

the pressure filter utilizing a sliding window (col. 28, lines 47-58).

As to claim 13, Gillespie discloses the input device comprises a touch pad (10, Fig. 1).

As to claims 29, 30, Gillespie discloses determining a rate of change of pseudo-pressure associated with the pressure signal (determining the Z value applied by the user), comparing the rate of change of pseudo-pressure with a threshold (302, 320 in Fig. 17A) and outputting a pressing signal if the rate of change of pseudo-pressure is greater than the pseudo-threshold (Fig. 17A).

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gillespie and Astala as applied to claim 31, and further in view Geaghan et al (US 2003/0063073 hereinafter Geaghan).

As to claim 4, Gillespie as modified by Astala does not disclose the adaptive pressure threshold value can vary over time. However, Geaghan teaches the thresholds can be adjusted over time (lines 16-20 in [0040]). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gillespie as modified by Astala to adjust the adaptive pressure threshold value over time as taught by Geaghan to distinguish valid touch inputs on a continuously updated basis.

9. Claims 18 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillespie and Astala as applied to claims 1 and 19, and further in view of Fujita et al. (US Patent No. 6,118,435).



As to claims 18 and 28, it is noted that Gillespie as modified by Astala does not specifically disclose outputting a signal associated with a haptic effect, the haptic effect based at least in part on the pressure signal. Fujita is cited to teach a touch panel device similar to Gillespie. Fujita further discloses a signal associated with a haptic effect, the haptic effect based at least in part on the pressure signal (see abstract and Fig. 2). It would have been obvious to one of ordinary skill in the art to have modified Gillespie as modified by Astala with the tactile force feedback as taught by Fujita so as to provide an interaction between the user and the computer.

#### ***Response to Arguments***

10. Applicant's arguments with respect to claims 1-13, 16-23, 26-32 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's remarks regarding the 101 rejection of claims 19-23, 28, 30, 32 are not persuasive. The "router, private or public network, or other transmission device or channel, both wired and wireless" are nothing more than propagation media that transmit or carry instructions, and it is the signal within these media that is actually carrying the signal. As such the claimed media is nothing but a signal which is not-statutory. As set forth in the Interim Guidelines, page 55, "A claimed signal has no physical structure, does not itself perform any useful, concrete and tangible result and, thus, does not fit within the definition of a machine". "A signal, a form of energy, does not fall within either of the two definitions of manufacture. Thus, a signal does not fall within one of the four statutory classes of § 101." Page 57 of the Interim Guidelines. Furthermore, it has been decided by the CAFC in *In re Nuijten* that signals are not statutory. Therefore claims 19-23, 28, 30, 32 are not statutory.

Applicant's remarks regarding Gillespie are not persuasive, see the rejections above.

***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Regina Liang whose telephone number is (571) 272-7693. The examiner can normally be reached on Monday-Friday from 8AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Regina Liang/  
Primary Examiner, Art Unit 2629